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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/911,596

07/24/2001

Tsutomu Uenoyama

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01/27/2005

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EXAMINER

WONG, ALLEN C

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,596

Applicant(s)

UENOYAMA ET AL.

Examiner

Allen Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/19/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,10,12-18,20 and 21 is/are rejected.
- 7) ☒ Claim(s) 8,11,19 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/19/04 have been fully read and considered but they are not persuasive.

Minor claim objections to claims 16, 17 and 20 have been withdrawn.

Regarding lines 11-13 on page 9 of applicant's remarks, applicant asserts Yagasaki does not disclose or teach a controller for controlling the operation of the video compression unit and the video transmission unit as claimed in claims 1 and 12. The examiner respectfully disagrees. Yagasaki teaches that the element 31 of fig.6 is the data control circuit 31 that controls the compression and transmission bit rates by affecting the quantization unit 16 of the video compression circuit 2 and utilizing a commonly well known MPEG video encoding scheme, the recursive buffer quantization scheme. The recursive buffer quantization scheme, as taught in Yagasaki, utilizes the transmission buffer 3 with the quantization unit 16 of the video compression unit 2 to recursively and constantly adjust the quantization for affecting the video compression rate and the data transmission rate of the data transmitted D_{TRA} , and the quantization rate controller or Yagasaki's data control circuit 31 acts as a medium to interactively affect the coding rate and the transmission rate. Thus, the broad limitations of the claims are met by Yagasaki.

Regarding lines 3-6 on page 10 of applicant's remarks, applicant contends since neither Yagasaki, Lee nor Moriyama disclose, teach or suggest the controller for controlling the operation of the video compression unit and the video transmission unit,

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the rejections to claims 4 and 15 in view of Yagasaki and Lee, and, the rejection of claims 9, 10, 20 and 21 in view of Yagasaki and Moriyama, are not taught by the prior art. The examiner respectfully disagrees. Yagasaki teaches that the element 31 of fig.6 is the data control circuit 31 that controls the compression and transmission bit rates by affecting the quantization unit 16 of the video compression circuit 2 and utilizing a commonly well known MPEG video encoding scheme, the recursive buffer quantization scheme. The recursive buffer quantization scheme, as taught in Yagasaki, utilizes the transmission buffer 3 with the quantization unit 16 of the video compression unit 2 to recursively and constantly adjust the quantization for affecting the video compression rate and the data transmission rate of the data transmitted D_{TRA} , and the quantization rate controller or Yagasaki's data control circuit 31 acts as a medium to interactively affect the coding rate and the transmission rate.

Since Yagasaki teaches the controller for controlling the operation of the video compression unit and the video transmission unit, the rejections to claims 4 and 15, via the combination of Yagasaki and Lee, are valid for the same reasons as stated above. Also, the rejections to claims 9, 10, 20 and 21, via the combination of Yagasaki and Moriyama, are valid for the same reasons as stated above.

Thus, the rejection of claims 1-7, 9, 10, 12-18, 20 and 21. Dependent claims 8, 11, 19 and 22 are still objected to as containing allowable subject matter, especially if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-7, 12-14 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yagasaki (5,136,376).

Regarding claims 1 and 12, Yagasaki discloses a video compression transmission method and apparatus for compressing a digital video signal and transmitting the resulting signal (see fig.2 and 6), comprising:

a video compression unit for performing compression encoding on an input digital video signal (fig.2, element 2 and fig.6);

a video transmission unit for transmitting to outside the signal compression-encoded by the video compression unit via a communication line (fig.2 and 6, element 3, note the transmission buffer is transmitting data outside the signal compression encoded by compression unit 2); and

a controller for controlling the operation of the video compression unit and the video transmission unit (fig.6, element 31), wherein the video compression unit and the video transmission unit are operated in parallel (fig.2, note video compression unit and transmission unit are operated in parallel).

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Regarding claims 2, 5, 6, 13 and 16-17, Yagasaki discloses wherein at least one of a compression encoding process via the video compression unit and a transmission process via the video transmission unit can be changed by the controller (fig.6, element 31 can affect the video compression and the transmission processes).

Regarding claims 3 and 14, Yagasaki discloses wherein the change in the compression encoding process via the video compression unit includes at least one of a change in the compression ratio of pictures and a change in the video compression encoding details (col.26, ln.11-14 and fig.6, note the quantization 16 can affect the picture compression ratio or the quantization ratio and the video compression details by relying on the results and commands sent by controller 31, also there is the transformation circuit 15 and the motion detection/estimation/compensation circuit to affect the video compression details).

Regarding claims 7 and 18, Yagasaki discloses wherein the set conditions include the allowable range of at least one of the transmission rate, required transmission time and picture quality (col.26, ln.40-53; note transmission rate, transmission time and picture quality affect the quantization to set conditions proper for video compression).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yagasaki (5,136,376) in view of Lee (5,638,129).

Regarding claims 4 and 15, Yagasaki discloses wherein the change in the compression encoding process via the video compression unit includes at least one of a change in the compression ratio of pictures and a change in the video compression encoding details (col.26, ln.11-14 and fig.6, note the quantization 16 can affect the picture compression ratio or the quantization ratio and the video compression details by relying on the results and commands sent by controller 31, also there is the transformation circuit 15 and the motion detection/estimation/compensation circuit to affect the video compression details).

Yagasaki does not specifically disclose wherein the change in the video compression encoding process includes at least one of a change in the motion vector exploration method and a change in the type of filters applied to pictures and presence/absence of filters. However, Lee discloses the video compression encoding process including a change in the motion vector exploration method and changing filters (col.6, ln.15-35). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Yagasaki and Lee, as a whole, for accurately encoding the image data with precise motion vector detection and estimation (Lee col.2, ln.48-53).

Claims 9-10 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yagasaki (5,136,376) in view of Moriyama (5,537,409).

Regarding claims 9-10 and 20-21, Yagasaki discloses the preprocessing circuit and the input storage that stores the digital input video images. Yagasaki does not specifically disclose the controller controlling the operation of the video input unit. However, Moriyama discloses a controller that does control the output of the inputted digital images (fig.6, element 26 controls the inputted images in preparation for the input images to be compressed and transmitted). Therefore, it would have been obvious to one of ordinary skill in the art to take the teachings of Yagasaki and Moriyama, as a whole, for eliminating synchronization complications during the video compression process (Moriyama col.1, ln.34-38).

Allowable Subject Matter

5. Claims 8, 11, 19 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Yagasaki discloses a method of coding video signals and transmission system. Lee discloses image processing apparatus using pixel-by-pixel motion estimation based on feature points. Moriyama discloses synchronizing system for time-divided video and audio signals. The prior art does not specifically disclose a processing time measuring unit for measuring the compression encoding time via the video compression unit and the transmission time via the video transmission unit, wherein the controller changes at least one of the compression encoding process via the video compression unit and the transmission process via the video transmission unit

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depending on the set conditions and the output of the processing time measuring unit. Furthermore, the prior art does not specifically disclose wherein the video input unit comprises a video apparatus controller for supplying a digital video signal from external video apparatus to the video compression unit as required at a speed equal to or greater than the speed required for the compression encoding via the video compression unit.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Wong
Examiner
Art Unit 2613

AW
1/24/05